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COMPOUND COMMINUTED FRACTURES OF THE ARM. AMPUTATION
OF THE SHOULDER-JOINT. CASE OF MRS. S. E. SHAW.

BY EDWARD WARREN, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

ABOUT ten o'clock on the night of the 27th of January, 1852, I was suddenly called to the railroad depot in this place, to see some person or persons injured by the train which had just come in. I learned that after the train had stopped, the persons employed about it heard groans, and going back found two persons badly injured lying on or near the track. A third was found upon the platform of the depot, but not badly hurt.

On arriving at the depot, I found my former patient, Mr. Shaw,* lying upon the floor in great agony, but unfortunately in perfect possession of his senses. His left arm was torn off close to the shoulder-joint—the separated portion being fairly ground up into atoms.

Having examined him, I was called into the ladies' apartment, where I found Dr. J. P. Maynard, who then practised in this place, and Mrs. Shaw. She was lying upon the floor. Her left arm was torn off, hanging only by a thread of flesh. Her right arm was broken above the elbow, near the middle of the humerus. There was a compound comminuted fracture at the elbow-joint. Below the elbow were two large and deep punctures, made by some blunt instrument such as a spike, penetrating the bone and causing compound comminuted fractures also. There was a simple fracture of the ulna near the wrist. Thus, there were two simple fractures, and three compound comminuted fractures of this limb; the case so far resembling Mr. Shaw's, in his first accident. Besides this, the thumb was torn off at the root, and the end of the fore-finger was gone. There was a triangular wound over one eye, forming a flap, and penetrating the outer plate of the bone. Above this, on the forehead, was another wound two inches in length, penetrating the periosteum and scraping the bone.

In the mean time, the conductor of the train had sent to Boston for additional surgical aid. He thought it would take a little over

* See p. 513, Vol. LX.

an hour to go and return. Dr. Maynard and myself, therefore—after doing what was immediately required to Mr. S., dressing Mrs. Shaw's wounds upon the forehead, both of which required sutures, and attending to other minor particulars—agreed to await the arrival of the surgeons or surgeon sent for.

It was about two o'clock, more than four hours after the accident, before any one arrived. Dr. John C. Warren was sent for, but his age and health not permitting him to come, the services of Dr. Henry J. Bigelow were obtained.

On his arrival we examined the patients together. Mrs. Shaw's case we considered most favorable. Mr. Shaw's appeared doubtful. The arm torn off so near the body; his size rendering the wound proportionably large; the fact that persons of his make and constitution suffer more than those of spare habit of body, and bear nerve injuries worse; these circumstances inclined to an unfavorable prognosis. On the other hand, my experience of his prompt recovery, in the former case, gave very strong hope for a favorable issue in this one.

We proceeded to operate upon Mrs. Shaw. Amputation was performed by Dr. Bigelow upon the remains of the left arm, leaving a fair stump. The ragged portion at the root of the thumb, and that of the fore-finger, were removed by the knife, and bandages applied. The right arm was bandaged with temporary splints. We then turned our attention to Mr. Shaw. The arm was torn off so near the shoulder-joint, that Dr. Bigelow thought it would be advisable to remove the stump at the articulation—an operation seldom performed, but which has several times been done successfully by Dr. Lewis. After some hesitation, Dr. Maynard and myself consented. The patient was supported in a chair by two assistants. Dr. Maynard administered ether. The disarticulation was very skilfully performed by Dr. Bigelow, little blood was lost, and the patient seemed to undergo it without exhaustion. We then proceeded to apply bandages. Just as we had completed the dressing, sudden syncope took place.

Every exertion was made to restore him. Dr. Bigelow, by placing his mouth in contact with his, labored to inflate the lungs. Respiration and pulsation were restored, and he revived. For some minutes he seemed recovering, but suddenly he again became inanimate, and all further attempts to restore him failed. He died just at day-light. Mrs. Shaw required some further slight attentions. She fortunately continued insensible, and to this cause she undoubtedly owed her life.

On the next day splints were sent out to us by Dr. Bigelow, and applied by Dr. Maynard and myself. Short splints were applied to the arm and fore-arm, and the whole placed in a hinge splint, which admitted of daily motion of the elbow-joint. Dr. Maynard and myself continued to visit her, morning and afternoon, at first in consultation; afterwards I saw her in the morning and

he in the afternoon for about a month—after which I continued my attendance alone.

Things went on favorably, and in about ten days she began to recover consciousness. The stump was healing well. I carefully preserved the length of the remaining arm, and kept the ends of the humerus in immovable contact at the place of fracture. But there had been no redness of the skin, no swelling, no pain; in short, the limb at rest presented every appearance of a perfectly sound one. This state of things continued. She recovered full consciousness; the stump healed well; the simple fracture of the ulna united; and the compound fractures of the fore-arm and the elbow became united and healed in the usual time. The wounds upon the forehead and those of the thumb and fore-finger, did well; but no pain, inflammation or swelling ever occurred at the seat of fracture in the humerus. Though appearing well and sound when at rest, on a slight motion it bent in the middle.

During her convalescence, she suffered from inflammation of the eyes, and severe neuralgic pains. After four months continued application of the splints, it was judged best to remove them daily, to apply friction and other remedial measures to the limb.

In the month of September, I consulted my brother Dr. John C. Warren by letter, describing the case. His answer was as follows, dated September 29th, 1852:

*"First—*I think the continued application of a bandage would by its pressure prevent union.

*"Second—*I should make a case of paste-board, or light wood, to support the arm and prevent motion, without making pressure on the arteries.

*"Third—*If, in three or four weeks, there is no appearance of union, I would pass a seton between the bones."

The bandages were consequently discontinued, and a paste-board case applied. No change, however, took place. After some time longer I discontinued my attendance, leaving her in charge of her brother-in-law, who had become expert in dressing the arm; and her daughters, who were also able to assist. The application of a seton she was unwilling to submit to, without a longer trial. Neither could I urge it, after what she had already suffered.

About a year after this, all other measures having failed, she applied to me to go with her to Dr. John C. Warren, to ascertain if he would still advise a seton, or if he considered benefit might be derived from any other course. I accompanied her to his house on the 7th of November, 1853, about ten months after the accident. Dr. J. Mason Warren was present at the consultation. Dr. Warren was not now in favor of a seton. He thought it an uncertain and dangerous measure, as it had in some instances produced a fatal result, from constitutional irritation. He advised some slight measures which I have forgotten, but considered the case a hopeless one—one not to be benefited by any surgical means.

Some length of time after this, I went with my patient to the house of Dr. H. J. Bigelow, where a consultation was held between Dr. Winslow Lewis, Dr. Bigelow, Dr. Maynard and myself. After a thorough and deliberate examination of the arm, all agreed that the ends of the bone were in apposition; that the cause to which I attributed the non-union was the correct one, viz., the extent and number of the other injuries—the wounds of the elbow and fore-arm, thumb and finger, and on the other side, that of the stump, drawing off the inflammation from the seat of fracture and preventing the necessary action. It was also unanimously agreed that there was now no probability of union, and no operation of any kind would be desirable.

Her present state is as follows:—The left arm is gone. The right arm has an artificial joint about the middle of the humerus, so as to bend when she attempts to raise the limb, and requires the constant support of a paste-board case. The elbow has become stiff. During my attendance, I kept up the motion of the elbow by daily flexion; but since then, the motion at the place of the fracture, by rendering the elbow-joint useless, has allowed it to become stiff. The rotation of the wrist is lost, and the thumb and end of the fore-finger gone.

By supporting her elbow upon her knee, and bending down her head, she can reach her face with her hand. But she cannot dress herself, and is in fact almost helpless.

She has suffered and still suffers very severely from neuralgic pains in the head, body and limbs. At times she has had numbness in the arm, and other symptoms threatening the loss by paralysis of the little use she has of it.

At the time of the accident, the patients were living in easy circumstances, and some degree of elegance, in Grantville—Mr. S. being in profitable business.

Mrs. Shaw brought an action against the Boston & Worcester Railroad Corporation, for the injuries sustained by herself. It is just terminated, after four trials, in which forty-seven out of forty-eight jurors decided in her favor. The decision was confirmed in June last by the full bench of Judges of the Supreme Court, and the amount (\$24,738) has just been paid to her. This is a larger sum than ever before awarded in a similar case in this State—a slight compensation, however, for the mutilation and physical suffering Mrs. S. has experienced.

Newton Lower Falls, Ms., August, 1859.

ELECTRICITY A REMEDY IN NERVOUS DISEASES.

BY ALFRED C. GARRATT, M.D.

[Communicated for the Boston Medical and Surgical Journal.—Concluded from page 19.]

To the inquiry, "In what cases, and when, is Electricity a valuable remedy?" we answer that the medical employment of Electricity is indicated, as a rational, and often as the only hopeful treatment to be resorted to:—

1st, To re-establish local, or general sensibility, as well as the special sensibility of the organs of sense—as the cutaneous and proper muscular sensibilities; also some auricular, optical, genital, &c., when either of these are abolished, or simply diminished.

2nd, To restore capability, as well as contractibility, to such muscles, or muscle groups, as are deprived of this power, when the loss of contractibility is in no way due, or rather, *no longer due*, as a symptomatic disease, to a persistent lesion of the cerebro-spinal axis.

3d, To re-establish, through the vaso-motory nerves, and by reflex action, to deranged muscles and organs, their normal type of contractility and sensibility, when either exaggerated, diminished, or perverted.

4th, To restore the normal power and dominion of the will, by changing the nervo-electric polarity of those nerves whose normal function is solely to transmit the orders of the will, to the muscles; through this media put a stop to many cases of recent agitations, choreic movements, spasms, and a large class of otherwise uncontrollable local pains and palsies.

5th, For those cases of functional cerebral derangements of the earlier stage and milder form, manifested by a general want of sleep, or even a wakefulness that continues perhaps for days together, accompanied, it may be, or it may not, by excitability.

6th, For calming down the nerve-irritation in some intractable neuralgia, tic douloureux, flying or fixed neuralgic rheumatisms, and for aiding in breaking up the dyscrasia of chronic periosteal and arthritic rheumatisms.

7th, For hyperæsthesia, not only as it affects the peripheric skin-nerves, but especially that exalted state of a class of muscle-nerves constituting cephalalgia, thoracalgia, epigastralgia, rachialgia, myelalgia (of the limbs), hysterical myoalgia, and those inframammary pains not infrequently presenting in males as well as in females.

That electricity has this capability, *par excellence*, to correct morbid nervous action, and to tone up, or tone down, deranged nerves, in a radical manner, and for permanency, far beyond all other direct medication, is now beyond the slightest question, in the mind of any one who may have watched the practical operations of the different forms of electricity, and the very different effects of those same currents, according to the several methods of apply-

ing them to the anatomy of the human body. This, of course, presumes a definite knowledge of the work to be done, and of the means by which it is proposed to be accomplished:—that is, of anatomy, pathology, and of general medical practice, as well the laws of static and dynamic electricity, as a familiarity with the laws of electro-physiology and the general electro-biological phenomena in disease and in health. To be vigilant in maintaining constant, even-working batteries and apparatus, and to exercise adroitness in their manipulation, are no less essential to uniformity of success. To a certain extent, this can be carried into effect by every practitioner of medicine, who has time and taste for it, if he has any degree of nicety of tact—while to bring about all that electricity is capable of accomplishing, *as a remedy*, is only to be expected in a special practice, where the whole time and attention is devoted to this class of patients, and particularly to this mode of treatment.

By keeping a careful record of the cases presenting for *electrical treatment*, not only of their condition as to extent of deviation from health, and from normal function, at the time they first entered, and the number of *séances* they receive, and the time they are under the treatment, but also noticing precisely the kind of current made use of in the given case, its direction, alternation, interruption, rapidity of repetition, kind of electricity and kind of electrodes used, and the succession of the different forms, if more than one is brought to bear upon the same case, together with the collateral medication, if any, and the exact negative or positive result in each, of some hundreds of these patients, we are enabled, to sum up, advisedly, the following, as yet small and imperfect schedule of the more grave cases, less or more successfully treated.

1st, In sub-acute (!) and in chronic paralysis—local paraplegia, hemiplegia—some with persistent contractions, some with and others without muscular electro-contractility. The first class, of sub-acute, consisted of but a few cases, which we purpose to report fully, were treated simultaneously, or alternately, but mainly by leeching and constant voltaic labile streams. In five cases out of seven, in all, the recovery was in less time than that heretofore allowed for the resolution of the original solution of continuity, always thought necessary for the safe and successful resort to any kind of electricity.

2d, In true cerebral hemiplegia, partial and complete; in some cases from white *ramollissement*, and others mostly from long previous hæmorrhage. The degree of improvement attainable for these, and in others the complete cure, so far as we can see, shows itself after but a very few treatments, in the more favorable cases not only, but very unexpectedly in some seemingly unfavorable ones; while others, promising similar or better results before being tested, were improved very much more slowly, if at all; and many others, of long standing, were treated without any sort of

real permanent good, notwithstanding the repetition of most careful and faithful treatment.

3d. In the so-called *tabes dorsalis*—emaciation and marasmus. The cases recorded under this head—loss of flesh with cough, and pains about the back, thorax and bowels—are from widely different causes and circumstances, but presenting similar actual state of nervous disease: while another larger class, more properly under this head, were caused by excess in venery, as they almost all confessed. The most marked benefit of the *electrical treatment* was shown by lessening in some, by completely removing in others, the many tormenting abnormal sensations, as well as the aches, lameness and pains about the back and loins; improving the gait in walking, and the power of standing, correcting the paralysis of the bladder, and other genital weakness, while the restoration of flesh and strength in very many cases is manifest by the weight, as well as by appearance and capacity for business.

4th, In progressive muscular atrophy. For some cases the improvement, although slow it is true, is real and beyond a doubt, not only for putting a stop to the onward march of the ruinous wasting, but actually restoring the warmth, size and strength of the muscle or limb. One case of this kind is now under prosperous treatment, and was sent to us by the kindness of Dr. Cabot, of Park Square.

5th, In headaches, periodical, hemicranial, brow-ague, and a great variety of head-pains, both neuralgic and truly periosteal. Many of these had proved to be cases of great obstinacy, resisting all medication from the first and best hands for years. Repeated use of the smooth and even stream of galvanism through *reflex action*, seems to be the only permanent cure of these "everlasting headaches." In a gentleman of the bar, who has been a martyr to this kind of suffering, and is comparatively freed from it by electricity, the headache is apt to return now after any considerable effort, but the attack is lighter and shorter, so that a good cup of tea, or of coffee, will drive it away: whereas, he says, before, it occurred on all occasions and mostly without any sort of assignable cause, but dreadfully after an effort. In females, there also remains a great tendency to its recurrence about the monthly period, but they almost invariably say "they are decidedly less severe, and far more bearable." They are also of shorter duration. One of the most unimproved of such cases is a Miss B——, who evidently has a gouty diathesis. This patient was referred to us by the kindness of Dr. Reynolds, of Winter Street. Her father was in our rooms to-day, and says, however, "they do think she is on the whole really better."

6th, In sub-acute and chronic rheumatism—arthritic, neuralgic and muscular. In one case the dropsical state of the knee-joints was completely overcome. By the way, we would here remark that we have seen water in the sac of the scrotum (hydrocele)

rapidly absorbed in two cases, from the effects of electricity alone, without a recurrence as yet of the disease. Stiff and painful joints in chronic and cold rheumatism are improved very surprisingly, as to rapidity, completeness, and permanency, considering the nature of that disease. But cases of neuralgic or muscular rheumatism, affecting the back, shoulders, neck, and upper arms, are by far the most numerous here in Boston, so far as our records show. One such case, Master S——, sent to us by Dr. Townsend, we will mention as presenting the frequent complication of paralysis of the sterno-cleido-mastoideus muscle and fascia of the right side, while there was a permanent *rigid contraction* of the *serratus*, also of the anterior and upper portion of the *trapezius* of the left side, which drew the head over to the left shoulder, deforming the boy's thorax, besides a wry neck. This case is perfectly restored.

UNCHANGABLE SOLUTION OF PROTOXIDE OF IRON.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS EDITORS,—In introducing to the notice of the medical profession, about one year since, a preparation with the name as given above, we were careful to publish, in connection, its composition and method of preparation, that physicians might see and judge of its value as a therapeutic agent. As it has proved to be one of the most valuable of the iron salts, and the form in which it is presented is pleasant and generally acceptable to patients, we give more specific directions as regards its preparation and preservation.

In its preparation, we take any given quantity of chemically pure protosulphate of iron, and from its solution in water precipitate the protosalt, by the equivalent quantity of carbonate of soda, also in solution. The precipitate is successively washed in cold water, to which syrup has been added, to prevent oxydation during washing, until all traces of sulphate of soda disappear.

The moist protoxide of iron is then dissolved in pure dilute acetic acid, to the point of complete neutralization, and to the clear solution thus formed, sugar is added so as to form a syrup of sufficient density to protect from change.

Care should be observed in selecting pure materials, and in thoroughly washing the precipitate. If the manipulation is skillfully performed, but little change will occur in it, before the protecting influence of the sugar is secured. If too little sugar is added to the solution, it will slightly oxydize upon exposure to air, therefore the syrup should be rather dense to protect perfectly.

Desirous of reducing the sugar to the lowest amount compatible with the protection of the protoxide salt, we find to our

regret that in one or two parcels too little was used, and consequently a pellicle of magnetic oxide formed upon the solution, but not enough to essentially change its character.

Physicians will have no difficulty in preparing this solution with proper apparatus, and the exercise of care.

I have never seen the proto-acetate of iron proposed as a remedy in any medical treatise, and I have not known of its being used, except empirically in a preparation known as "Peruvian Syrup." It is certainly exceedingly prompt and efficacious in its effects, and must be regarded as preferable to the tartrates or citrates, or other salts of the metal.

During the past year, it has been used by nearly one hundred physicians, in various parts of the country, and the testimony is unanimous in its favor.

JAMES R. NICHOLS.

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REMARKS ON THE EPIDEMIC OF DIPHTHERITE (OR HOG-SKIN ANGINA).

[Translated from the *Gazette Hebdomadaire de Médecine et de Chirurgie* of July 15th, 1850, for the Boston Medical and Surgical Journal.]

BY O. D. PALMER, M.D., ZELIENOPLE, PA.

NOTWITHSTANDING the positive opinions of some authors to the contrary, diphtherite is an affection still but little known. Whilst maintaining this position, it seems to me proper that those who have been called upon to observe it, should make known, not only what they have been able to see particular in the new epidemic, but also the comparative appreciation of the general facts, as they have been observed by themselves, or as they have been learned from others.

In the commencement of this epidemic, with my memory surcharged with the writings most recent and esteemed, and more especially with the original works of M. Bretonneau, I considered myself armed against it; all seeming to me simple and clear. The mode of propagation, contagion, progressive extension; the disease extending from the throat or nasal fossæ into the rest of the organism, at first wholly local, drawn to the exterior, and only affecting the whole system from the external to the internal parts; the therapeutic success, dependent on the energetic application of the wholly surgical means, that is, dependent on the hands of the physician—all was simple, and my only expectation was to have to follow the best models.

My hopes have been betrayed; the perfect image that I awaited, has discovered itself in a very different shape, as will appear from the picture that I am about to trace.

I have seen an affection raging among different populations, attacking at the same time individuals having no communication with each other, without regard to other diseases, with but few rare

exceptions originating from an unknown influence, and seeming to choose its subjects indiscriminately. The disease begins like a severe eruptive fever, in the midst of a large retinue of general symptoms, with considerable tumefaction of the ganglions, even when the false membrane is hardly developed; commencing in the throat, to extend from one part to the nasal fossæ, and from another to the respiratory passages, and sometimes to the digestive apparatus; showing itself also in the auditory conduit, at the vulva, in the vagina, in cutaneous lesions; attacking various points of the organism, without relation to contiguity—the throat with the vulva, the throat with the bronchia, the larynx remaining sound; the throat, then the intestines. These coincidences, indicated by the symptoms, have not been justified by the opening of bodies; but in two cases of tracheotomy, I have been able to demonstrate the absence of false membrane in the trachea, whilst it existed in the bronchia, or was in the state of being formed. In a good number of instances the adventitious membrane has been detached without treatment, or with very little, and as quickly as when cauterizations daily or even more frequently have been practised. This is no hindrance to the re-formation of false membrane, in parts contiguous or remote, and these new attacks have taken place, both when the throat contained the pseudo-membrane adhering, and when *this was completely free*. That is to say, we have observed an affection, originating more from epidemic influence than from contagion, marching, in the manner of the exanthematous fevers, from the circumference to the centre, not always following the way of contiguity, in extending its characteristic products, little susceptible of being arrested in its progress by caustics, but sometimes yielding to the efforts of spontaneous reaction—an indication that we should endeavor to imitate, in furnishing the organism means of sustaining a frequently unequal contest.

All is linked together in the doctrine of M. Bretonneau. Generalizing the facts of incontestable contagion, he admits that in all circumstances the diphtheritic germ is deposited locally, as it is in syphilis. He forgets that with whatsoever part of the skin or mucous membrane the virus comes in contact, it is the throat, amygdalæ, and nasal fossæ, that produce, with some rare exceptions, the first vestiges of false membrane, belonging to this species of *angina*. It is different in this particular from syphilis, to which it assimilates, and which acts at first, and always, on the part where it is applied. There is, then, in all cases, and especially in serious cases of diphtherite, a diseased action internally succeeding to the contagion (when it is caused by this), and subsequently producing a similar disease, as takes place in the eruptive diseases, variola, rubeola and scarlatina, which likewise appear insidiously, and without our being obliged to refer their origin to contagion. May it not be the same in this pseudo-membranous angina? I have offered sufficiently numerous examples

before, and have remarked elsewhere, "its contagion is *possible*; it is not at all *necessary*."

From the full conviction of the development of this disease *internally*, to that of its destruction, at once, by cauterization, is but a step; this step has been taken, and numerous successes are furnished in support of the doctrine. They have been shown, doubtless, in severe cases, but much more often when the cure has either been wholly spontaneous, or obtained by the mildest means. These successes have not been wanting to me, either, though I have confined my cauterizations to the *isthmus of the throat*.

It is, then, by figures, that it will be necessary to resolve this important question, and its solution is required by science. Whilst awaiting, may we not be permitted to adduce the greater success in tracheotomy, since surgeons no longer *cauterize* the trachea after the operation, against the utility of such a practice in the larynx.

With my own experience, and after an attentive perusal of the known facts, I think we are not far from the truth in considering this primarily a general disease, inclined to manifest itself upon the mucous membrane in the same way that the eruptive fevers do upon the skin. Doubtless this view is less seductive, in a therapeutic point of view, than the preceding one; for were it established, we should be left unarmed against this, as we are against the eruptive fevers, all the phases of which we are obliged to submit to, without the beneficial interference of heroic means. But if this is the truth, we must accept it as it is.

Pathological anatomy, chemistry, the microscope, have not as yet afforded very great aid to the study of diphtherite. The first of these, in explaining the internal lesions caused by this disease, has only confirmed, in regard to the interior, what clinical observation had established, in the living, in the parts accessible to view. It has shown, also, the liquid state of the blood, the vascular congestions resulting from this state, and the mechanical asphyxia caused by the false membranes obstructing the air passages. It has examined, perhaps too negligently, the lymphatic system, which appears to play the most important part in this disease.

Chemical analysis and the lens, in ascertaining the fibrinous nature of the false membrane, have still not been able to distinguish it from the *pultaceous covering* that accompanies a pathological state very different from the pseudo-membranous angina.

The chemists and micrographers ought to give us correct examinations of the blood at different stages of the diphtherite. This would probably open the way to a knowledge of the morbid state that certainly precedes a primitive modification of this fluid, before it is essentially altered by the enormous amount of fibrine thrown upon the mucous membrane—a consecutive alteration, that explains so well the hæmorrhages and congestions, the debility so great and so slow to disappear, and those paralyses which hamper convalescence.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL
IMPROVEMENT. BY F. E. OLIVER, M.D., SECRETARY.

MAY 9th.—*Laryngitis; Tracheotomy.*—Dr. J. M. WARREN referred to a case in which he had recently operated with very marked relief, and Dr. JACKSON gave an account of the symptoms.

The patient was a very healthy girl, 28 years of age, and entered the Hospital, under Dr. J.'s care, on the 29th of April. During the night of the 25th she was suddenly attacked with great oppression in the front of the chest, wheezing and cough, having previously had a "cold," with some hoarseness. Symptoms continued, with very little fever, and from the 26th she kept her bed. When seen by Dr. J., on the 30th, there was a sense of tightness at the lower part of the sternum; no tenderness over the larynx, and there had been no aphonia; chest quite resonant and respiration faint, with some wheezing, but no proper râles. There appeared to be little or no constitutional affection, and the case was mistaken for asthma.

In the evening of the 30th, the dyspnoea increased, and during the latter part of the night it became very urgent. At 9½, A.M., on the following day, she evidently had laryngitis in its most dangerous form. She was sitting up in bed and laboring for breath as if her neck had been girt around with a cord; surface sublivid; hands cool and moist; pulse 126, small and feeble; forcible action of all the muscles about the neck in inspiration. Still there was no pain nor tenderness about the larynx, no dysphagia, and the aphonia was not complete.

Dr. Warren, who came into the Hospital just after the patient was found in this condition, was at once sent for, and the trachea was opened without delay; the blood that flowed from the incision being as dark as it would ever be seen in asphyxia. The relief from the operation was marked from the moment that the air entered the trachea, the natural color and warmth was restored, the pulse improved in proportion, and in a few minutes the patient was breathing with perfect ease; seeming only to be exhausted by the great efforts she had been previously making.

From this time she continued to do perfectly well, and on the 8th of May the tube was removed. During the night of the 11th she got up and walked about the ward, barefoot: on the 12th, some pulmonary symptoms came on, and, on the 22d, she was re-transferred to Dr. J.'s care. The larynx had been apparently quite free since the 15th inst., though the opening in the trachea had not yet closed. The recent affection was but a slight one; and, on the 24th, having been refused a request to walk out, she eloped.

[The latter part of this report was made at a subsequent meeting of the Society.]

JUNE 27th.—Dr. MORLAND, referring to the case of wound of the left nymphæ, in a woman five months advanced in pregnancy, reported by him December 14th, 1858, and in which there was profuse hæmorrhage and a threatening of premature labor—said that the patient had gone her full time and been delivered of a remarkably fine and handsome child, weighing eight pounds.

She was attended, on the 12th of April last, by Mr. F. C. Ropes, one of the Surgical House-Pupils of the Massachusetts General Hospital, and did well in every respect.

JULY 25th.—*Case of Cholera Infantum rapidly fatal.* Dr. MORLAND mentioned an instance of sudden death following rapidly developed symptoms of cholera infantum.

The mother of the child called at Dr. M.'s house to consult him on account of varicose ulcers of her legs, on Friday, July 22d, at about 3 o'clock, P.M. She had her two children with her, both apparently well. The youngest, nine months old, while in Dr. M.'s office, threw from its stomach, without effort, a little liquid of an acid odor; and had once or twice previously done so, that day. It made no complaint, and had neither cried nor expressed a sense of pain in any way. Its eyes were bright, its flesh of natural temperature, and it was considered to be as well as usual. It was a rather delicate child. Dr. M. was astonished to learn from its mother, this morning (Monday, July 25th) that the child was dead and buried. On Friday night, it suddenly became ill, grew worse, and died early on Saturday morning—the symptoms, as subsequently described, being distinctly those of cholera infantum. The family live at some distance, and the mother's expression was that the whole thing was so quickly over—being in the night, also—that “she had not time to send for any doctor.” The case seems worth mentioning, on account of the unusually short duration of the illness, and the extreme suddenness and violence of its accession.

The other child, about two years old, was to-day brought to Dr. M. for advice—it was peevish, restless, somewhat feverish, with a tendency to sleep continually; for the last twenty-four hours it had refused food. Its bowels had been rather costive, but began to show signs of irritability. Castor oil with paregoric was ordered, with strict diet, rest in bed, and a warm pediluvium.

Dr. M. supposed that cholera infantum must be increasing in the city, although the deaths had not attained a very high figure (*seven*, for the week ending July 16th*); he had this morning been called to see another case—the child, about sixteen months old, having been ill since Wednesday, July 20th. It had the disease in its worst form, and, to all appearance, must soon die.†

In conversation with Dr. ROBERT WARE, after the adjournment of the meeting, that gentleman informed Dr. M. that in his dispensary practice he was daily seeing a large number of cases, and that he thought the disorder had made its appearance at an earlier period, this season, than usual.

At a subsequent meeting, Dr. COALE alluded to three cases of this affection in which the progress of the disease was extremely rapid. One was that of a stout Irish child, a year old. He was called to see it at 9 in the morning; and it was then moribund. It was well at midnight.

In another case, a child was brought to his office between 3 and 4 o'clock, P.M., then suffering from diarrhoea, but without vomiting. He called to see it on the same evening, and found it dying, having had the symptoms of cholera only about four hours.

In a third case the symptoms were equally urgent, but with prompt treatment the patient recovered. He was called to see the child at 1,

* By the Registrar's report—observed the day after relating the above case—the deaths by cholera infantum for the next succeeding week, or that ending July 23d, are nearly double those of the former, being 13.

† Death took place a few hours subsequently.

P.M. At 12, one hour before, it was playing about the house. Six or eight grains of calomel brought away a bilious discharge, and the patient recovered.

JULY 25th.—*Strangulated Inguinal Hernia ; Apparent Reduction ; Persistence of Symptoms ; Operation ; Death.* Case reported by Dr. HODGES.

On Sunday, July 10th, Dr. Z. B. Adams was called to a healthy and temperate Irishman, about 48 years old, who, the day previous, whilst lifting a heavy weight, had ruptured himself. The rupture was small and easily reduced, so that the finger entered the canal. Dr. Adams prescribed some opium, but the friends, on Monday and Tuesday, gave the patient various cathartics, which caused severe colic. On Tuesday, at 12, M., Dr. Adams found him vomiting and in much suffering, with his hernia again down ; this was reduced a second time, and on Wednesday, the colic, tenderness and vomiting had disappeared. After Dr. Adams's visit, and in spite of all his cautioning, the friends of the man administered a dose of salts. On Thursday morning he was found in great pain, with tympanitis and tenderness over the lower part of the bowels, an anxious expression, feeble and rapid pulse, cold hands and feet, and stercoraceous vomiting. He made frequent ineffectual attempts to defecate, but his bowels, which were costive for a day or two before the accident, had not been moved since. At 9, A.M., when Dr. H. saw him with Dr. Adams, his condition was as just represented. On examination, no hernia could at first be found, but on comparison of the two sides, a very small tumor was thought to be felt on the right, partly covered and obscured by the cord, which was of large size. As hernia had existed at that point, and symptoms of strangulation were so marked, an operation was performed, as the patient's only chance. A direct inguinal enterocele was found, not larger than a pea. The sac contained no fluid ; when opened, the intestine was of a dark-chocolate color, but without any gangrenous odor. It was easily returned to the peritoneal cavity. On coming out from the effects of the ether, brandy and water and solution of morphine were given and repeated from time to time, but the patient's condition did not improve, and he died at 2½ o'clock, about five hours after the operation, and six days after the rupture took place.

Bibliographical Notices.

Love (" L'Amour "). From the French of M. J. Michelet, of the Faculty of Letters, Chief in the Historical Section of the National Archives, Author of a History of France, &c. &c. Translated from Fourth Paris Edition, by J. W. PALMER, M.D., &c. &c. New York : Rudd & Carleton, 1859.

This is a remarkable book. It is not to be wondered at, that in Paris it made the young ladies, and old ones too, of a certain age, start. What it will do with the Misses Grundy of our own ilk, who can guess ? It is a medico-physico-erotic treatise, in which the natural and unnatural history of Love is given without gloves. It deals mainly with young ladies between the ages of fourteen and forty-five, about thirty years, or half of average female life ; and what happens

to woman in that period is simply, plainly, openly told. The book indulges in no technicalities. Generation, maternity, and the periodicals, are treated in the most popular style, and after a manner and with the affixes and suffixes, which leave nothing for fancy. It is a book of intense interest. The woman of whatever age will read it with all of attention her ordinary life of dress and display may have left to her. Woman—we use the word generically—owes a great deal to the author of "Love." He knows that of which he speaks—what it is, and what it is not. He states fairly what is the social and individual claim of woman; and there is no man, who is a man, who will not say, from his very soul, it is a claim which must be allowed. How large and how deep is woman's obligation to M. Michelet! He has come to his subject fitted at all points for his great work. He has his defence—if such a word should be used by such an author—in the importance of his theme—its intellectual, moral, social, religious, individual importance. He only, of all before him, can be said to have *treated* his subject. He has possessed himself of it, as the trained wrestler of old did of his, and he has done his great work. It has the interest of a novel—and is it not *new*? It is written with the freedom and richness of manner with which important themes always clothe themselves. You read, from title-page to colophon, hardly knowing when you began, and why you have stopped. Johnson advises, that he who would read Macbeth, to understand it, should first read it not as a disciple—as one to be taught, a *discipulus*—but at a heat, and right on—nor stop to ask what this or that means, but to let the inspiration, so to speak, pour into him as he drives rapidly along; and afterward let him sit down and give his own thought to that of the divine author—yes, in *subjective* simplicity and truth, become, if not *the*, in some sense *as that author*, that master. So you will and must read "Love." You will not stop till it is all over. You may ask, how could a man have told such secrets of the deep mystery of woman? How did he reach them? Should he have put them there in black and white? Is it right? It will be read as was Jane Eyre. Who ever stopped to take thought or breath when reading that wonderful, that terrible book? Said a friend, "I took it up with my elbow on the mantel-piece and began to read, and I did not move that elbow till I had read the last word." Speaking of this work of Currer Bell, a question arose with us, Was its author a man or a woman? We answered at once, "A man never wrote it—a man who was ever in love. He would have shrunk intuitively from such a terrible breach of promise, which no law could reach, and the disclosure of which would thrust him from the pale of humanity." No, a man never wrote Jane Eyre. So of this book of Love itself, had not its author's name come with it, would it have been credited that a man wrote it? Whence his knowledge of woman's history? Whence such knowledge of such history? Medical men as we are, we think we could not have written such a book; certainly we can hardly make up our minds to believe that we could have spread such facts before the world, whether of Paris or of Laputa,—told such secrets.

Is it for the parlor table? The Mrs. and Misses G. must answer that question. Is it for mixed talk—of ladies and gentlemen, &c.? We talk of Love, in the abstract. How will its concrete serve? A dictionary will help its study to *one* of Love's parties, if upon the whole it is best to *know* much about it. With our Uncle Toby—how

we do love him—Love was a *sentiment*, not a *thing*, and how do we all know both *it* and *him* (not to allude to the *furunculus*) without a glossary—without one look at the widow's eye—without even the Corporal?

We have called the attention of our readers to this work, because it is eminently one of hygiene. It is in this view of it that it addresses itself not to the profession only or chiefly, but to all classes of readers, since all may and will be most usefully instructed and helped thereby. It is novel in its plan, in its objects, and in its execution. It is by one of the most distinguished men of his age. He does not tell us how, by what means, or why, he wrote his book. It shows he has not confined himself to man as a political or historical being—of states, empires, revolutions; but has in man's highest social and moral relations—as the creator of his own best happiness, and his own worst misery—found a theme worthy of his fine intellect and true heart, and in love of woman and of man has given to the world the result of his labors. As a profession, physicians are under special obligations to our gifted author for his latest—is it not his best?—most important work.

Let it not be gathered, from what we have said, that we agree in all things which M. Michelet says. From his views of the practice of midwifery, and the "medication of the body," we entirely dissent. They are poetical in the highest degree, but not hence the more wise or the more true. They may apply to France, but they certainly do not apply to the Continent—to Great Britain, or to America. It is singular that there have been throughout all France, through all its history, but one Boivin and but one Lachapelle. We do not believe that, even for the meridian of France, a father is, from his relation to his family, its best physician; or that the husband is "the best doctor for his wife"—whether for diseases of menstruation, or during "confinement"; and yet, if you adopt the doctrine of our author, he is so. We are sorry that there is so much false reasoning in a book which has in it so much that is good, and so much of it of useful application.

W. C.

Hints to Craniographers, &c. By J. AITKEN MEIGS, M.D., &c.; Philadelphia; 1858. P. 8.

This pamphlet is an appeal to the officers and members of the various ethnological societies, and to individuals and others possessing collections of crania, to interchange catalogues of their collections, in order that the statistics of craniology may be promulgated, duplicate crania exchanged, and the science of ethnology advanced. Dr. Meigs proposes that the catalogues should be forwarded to the principal ethnological or other scientific societies of different countries, which, acting as central depots, may disseminate the information obtained.

An outline of the history of the science of ethnology is also given by Dr. Meigs, and a brief notice of the principal collections of crania in the world, of which it appears that that of Dr. Martin, now belonging to the Academy of Natural Sciences of Philadelphia, is the largest, containing about 1100 crania, representing more than 170 different races and tribes of the human family.

Craniology is the foundation of ethnology, and we trust that all

having collections of crania will read Dr. Meigs's pamphlet, and act upon his suggestions, in order to promote this most interesting and important science.

Woman, her Diseases and Remedies ; a Series of Letters to his Class. By CHARLES D. MEIGS, M.D., &c. Fourth Edition, revised and enlarged. Philadelphia: Blanchard & Lea. 1859. 8vo., pp. 706.

In the preface to this edition of his work, Dr. Meigs says that he has introduced many things formerly omitted, and erased others no longer needful ; and that he has faithfully endeavored to improve the style. In our judgment many faults of style still remain, but the long experience and well-known ability of the author have enabled him, notwithstanding, to present a book replete with valuable information ; and even the peculiarities of its style will recommend it to some, who would find a plain treatise on the diseases of females less attractive.

Urinary Deposits ; their Diagnosis, Pathology and Therapeutical Indications. By GOLDING BIRD, M.D., F.R.S. Edited by EDMUND LLOYD BIRKETT, M.D., &c. A new American, from the Fifth London Edition, with eighty Illustrations on Wood. Philadelphia: Blanchard & Lea. 1859. 8vo., pp. 382.

THE present edition of Dr. Bird's work, which may be considered the most valuable one on this subject in our language, has been prepared by a competent hand, and will be found to contain all that is known on the appearances presented by the urine, and the therapeutical indications to which they give rise. We need hardly say that the work is indispensable to the student and to the physician.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, AUGUST 18, 1859.

HYGIENE OF DRESS :—LADIES' WATER-PROOF CLOAKS.—“*Aquæ Scutum*”—literally, a *shield of water*—the most unlikely thing in the world, we should say, to afford protection, buckler-wise ! The only form in which the aqueous element could be used as a shield, would be that of *ice*, which, on account of the inconvenience arising both from its weight and its property of benumbing and otherwise rendering useless the shield-bearer's fingers, is not very likely to come into general use in the way indicated. The price of the article will not, therefore, rise on this account, nor will there be any scarcity of it before the sherry-cobbler season is over.

“*Aquæ scutum*”—it seems that, after all, this watery shield is not water at all, but *cloth*, yes, veritably a texture of the loom ; and, what is more note-worthy still, it is water-proof—antagonistic to the element, instead of being composed of it. The vendors of the article and of the jaunty little cloaks, with their fascinating hoods, so becoming—as we think—to the pretty faces nestling behind them, must be more careful of their Latin. They must either be at charges for a classical teacher, or else adopt their own language, where there is

less likelihood for somewhat ludicrous mistakes in nomenclature. If we might suggest, we would say—if Latin *must* be used—that *Scutum contra aquam*, or *contra imbrem*, would be a more correct name for the water-proof cloak now so fashionable for lovely and sensible promenaders in crinoline. Sensible they are, because to go out in all weathers, fearlessly, is sensible—and the shower-shield or rain-buckler will generally enable them to do it; as for the loveliness of *all* the wearers of the gray and brown cloaks, who dares to dispute it? *Caute, si audeat!*

Leaving philology and the appreciation of the beautiful, we have a serious word to say as to the *dimensions* of the "Scutum." As generally—we may safely say universally—worn, the garment protects only the head, shoulders, and the body until within from one to two feet of the pedal extremities. Why not prolong the cloak, so that it reach the extremity of the dress or skirt, and thus prove an entire, instead of a three-quarters shield? Unless we are mistaken, the lower portions of a lady's dress must be worse off when the too short water-cloak sheds tears, as it were, at its own short-comings, or allows those of Heaven to fall still more directly upon snowy skirt or previously untarnished silk. Then, too, the horror of having taper ankles wetted through and through by droppings from a pretended shield! Visions of colds, coughs, chills, consumption and countless cognate causes continually concurring to carry off youth and beauty from us, distress our waking, and even our sleeping hours. Let the shield be lengthened, until its border meets the middle of the leg of the rubber-boot—then, even if the cloak do not look *quite* so "genteel" and captivating (although why it will not, we do not see), it will be more truly a protection—a shield—a buckler; yes, even—horrible as is the word—a "*Scutum!*" See to it, ladies, we entreat!

BOARDING-HOUSES FOR YOUNG WORKWOMEN.—Women who live (if it can be called living) by sewing, in large cities, often find it difficult to procure good accommodations which are not at too great a distance from the workshops where they spend the greater part of the day. This has become a serious evil in New York. Young girls are sometimes obliged to occupy crowded, ill-ventilated and dirty rooms, in a part of the city where respectable females are hardly safe from the vicious influences by which they are surrounded. We are glad that an effort is making in that city to establish large female boarding-houses, to be constructed with reference to the health and comfort of the inmates, and to be managed by philanthropic persons, under whose care the young women would be protected from the dangers to which they are now exposed. Such an establishment is much needed in New York, and its success would bring health and happiness to thousands of girls who are now pining for air, cleanliness and decency, in the vile garrets of the old parts of the city. The late Horace Mann, when once asked where he lived, replied, "I don't live anywhere, I board." Boarding, under the best circumstances, is a melancholy existence to those who have experienced the comfort of home; but these poor female boarders are entitled to more than usual compassion. We attempted, a few weeks ago, to point out some of the evils to which they are subjected while at work. It seems hard that they should be deprived not only of the ordinary comforts, but of the essentials of life, when their work is over.

THE WOMAN WITH THE PIG'S HEAD.—The *Courier*, to whom the community is so much indebted for its efforts in exposing impositions of every sort, has itself been humbugged in an amusing manner. It gravely announces that a monster having the figure of a woman, but the head and arms of a pig, "no mere human resemblance, but the absolute fact," has been seen travelling in a public conveyance, near Quebec. She was closely enveloped in a cloth, but with the obstinacy so characteristic of the porcine race, she opposed the efforts of her attendants, who were striving to conceal her from public gaze, and succeeded in displaying herself, to the horror of the passengers. Moreover, the *Courier* gravely states that "it is known" that a similar creature lived in Albany, only in this case the arms were human; "the head was in every respect that of a pig—no particular was wanting—ears, bristles and even tusks, all were there." The *Courier* has fairly been caught napping. What, tusks on a female head! It was, then, a boar's head on the body of a human female! We have known several men who were remarkably pig-headed, though we are too polite to apply such an expression to those of the fair sex who possess unusual strength of will; and we have also seen not a few who might be said to possess an ass's head, but that a human being should be thus physically "translated," like Nick Bottom, is, of course, an utter impossibility. And yet such is the love of the marvellous, that no statement, however preposterous, whether concerning the "Woman who lives without eating," or Hedgecock's quadrant, or the woman with the pig's head and legs, fails to find believers among men who in other respects are intelligent and sensible. We dare say there are such who would believe in the Kentucky mythological creature, who was "half horse and half alligator, with a touch of the earthquake," provided the story came "from an authentic source."

INHALING BOTTLE.—Mr. La Forme, of this city, has shown us a bottle for inhaling medicated vapors, and which he calls his "Inhalor"—we should prefer to see this word printed inhaler.

This apparatus seems to be convenient, but we do not see that it possesses any marked advantage over the simple inhaling bottles which any one of common ingenuity can easily make. It is, however, of suitable shape and size, and may be had with a flexible tube if desired. We must say that we should prefer *glass* to metal, for the substance of which the tubes are composed. Many substances from which medicated vapors are evolved, will act upon metals; and the inside of the metallic tubes cannot be so readily and thoroughly cleansed as that of the glass tubes. The top of the "Inhalor" can be unscrewed, however; which affords more facility for cleaning.

We have seen a model for an inhaler, which, by reason of its broader and flatter form, furnishes a much larger surface from which to produce vapor. The shape is not unlike that of a nipple-shield—a flattened, rounded disc, with the bent inhaling-tube springing from its centre. This particular form is a modification, by Dr. G. H. Lyman, of the inhaler of Dr. Bowditch. We think it offers several advantages over those otherwise shaped.

DR. R. L. REA, formerly Demonstrator of Anatomy in the Medical College of Ohio, at Cincinnati, has been appointed to the chair of Anatomy in Rush Medical College, Chicago.

ON THE MANNER OF STOPPING THE PULSATIONS OF THE RADIAL ARTERY AT WILL.—When the forearm is, either actively or passively, extended on the arm in an exaggerated degree, the pulsations of the radial artery cease. This fact every one can ascertain for himself; and M. Verneuil explains it by a compression of the aponeurotic expansions of the biceps and brachialis anticus upon the vessel. Advantage might be taken of these circumstances in hæmorrhage from the hand or wrist; in the ligature of the radial or ulna arteries and their branches; or, lastly, in aneurism of the forearm. A weight might, in such cases, be fixed to the hand; or a splint be fixed on the dorsal aspect of the limb, with a pad against the elbow, so as to enforce exaggerated extension.—*La Presse Médicale Belge*.

THE Legislature of New York has incorporated a Preparatory School of Medicine in the city of New York. The following are the Lecturers:—on Surgery, John O. Bronson, M.D.; Midwifery and Diseases of Women and Children, Chas. A. Budd, M.D.; Chemistry and Toxicology, Bern L. Budd, M.D.; Legal Medicine, Hon. John H. Anthon; Physiology and Micrology, Charles K. Briddon, M.D.; Botany and Materia Medica, Geo. Thurber, M.D.; General and Special Pathology, Geo. A. Quimby, M.D.

The Faculty are empowered, under certain restrictions, to confer the degree of Bachelor of Medicine.—*Chicago Medical Journal*.

RUSH MEDICAL COLLEGE.—The arrangements for filling the vacancies in the Faculty of this institution are completed. The professorial corps is as follows:—Surgery, Dr. Daniel Brainard; Chemistry and Pharmacy, Dr. J. V. B. Blaney; Surgical Anatomy, Dr. J. W. Freer; Obstetrics, Dr. De Laskie Miller; Theory and Practice of Medicine, Dr. J. A. Allen; Physiology and Pathology, Dr. A. S. Hudson; Materia Medica, Dr. Ephraim Ingolls; Descriptive Anatomy, Dr. Robert Rea.—*Nashville Journal of Medicine and Surgery*.

THE SEVENTH ANNUAL MEETING of the "American Pharmaceutical Association" will be held in this city on Tuesday, the 13th day of September next, at 3 o'clock, P.M.—The Clinical School in connection with the Medical Department of the University of Michigan has been suspended, says the *Peninsular and Independent*.

HEALTH OF THE CITY.—The number of deaths last week was 6 less than during the preceding one, and of the whole number, 5 were the result of casualties. Cholera infantum is on the increase, the victims to that disease (30) being 11 more than for last week. Forty-one of the deaths were in subjects under a year old, and 56 were under five years. The deaths of males were 25 more in number than those of females. The total number of deaths for the corresponding week of 1858, was 81, of which 11 were from consumption, 20 from cholera infantum, and three from pneumonia.

Communications Received.—On Topical Applications to the Cervix Uteri in Sympathetic Vomiting from Pregnancy.—Treatment of the Nausea and Vomiting of Pregnancy.—Hæmorrhia cured by Seton.—Case of Monstrosity.—Case of Emuresis.

Books and Pamphlets Received.—A Practical Treatise on Enteric Fever, &c. By James E. Reeves, M.D.

MARRIED.—In this city, 9th inst., Dr. H. E. Davidson, of Gloucester, to Mrs. Sarah M. Chamberlin, of Boston.—At North Cambridge, 8th inst., Dr. John D. Mason to Miss A. Augusta Allen, of Cambridge.—At Groton, 9th inst., J. Q. A. McCollister, M.D., to Miss Georgianna L. Hunt, both of Groton.—At Worcester, 6th inst., Dr. H. W. Buxton to Miss Lydia M. Harrington, both of Worcester.

DIED.—At Ludlow, Aug. 5th, Dr. Washington B. Alden, aged 60.—In New York, July 31st, David Sands, M.D., in the 47th year of his age.

Deaths in Boston for the week ending Saturday noon, August 13th, 57. Males, 56—Females, 31.—Accident, 1—inflammation of the bowels, 1—disease of the bowels, 1—bronchitis, 1—inflammation of the brain, 1—disease of the brain (abscess), 1—burned, 1—consumption, 12—convulsions, 1—cholera infantum, 30—dysentery, 1—diarrhæa, 1—dropsy in the head, 3—drowned, 2—infantile diseases, 5—puerperal, 1—erysipelas, 1—bilious fever, 1—scarlet fever, 1—typhoid fever, 2—gangrene facialis, 1—disease of the heart, 1—loaniation, 1—disease of the kidneys, 1—marasmus, 2—old age, 1—palsy, 1—smallpox, 2—strangled (by a piece of meat), 1—teething, 4—tumor, 1—whooping cough, 3.

Under 5 years, 53—between 5 and 20 years, 7—between 20 and 40 years, 12—between 40 and 60 years, 6—above 60 years, 6. Born in the United States, 72—Ireland, 10—other places, 4.